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(54) **Title:** INVISIBLE DIGITAL WATERMARKS

(57) **Abstract**

A method and system of insertion and extraction of identification or authentication (watermark) data in digital media data such as video. The video data is divided into blocks and a pseudo–random function, such as a permutation, is applied thereto. The permuted data block is then transformed using an orthogonal transform such as a Walsh Hadamard Transform or a Discrete Cosine Transform. One or more of the ac coefficients generated by the transform are selected and the watermark data is inserted or extracted therefrom. An inverse permutation and inverse transform can then be used to return the video to the unencoded spatial domain. The inserted watermark data is substantially invisible in the reconstructed video since it is spread over the pixels in the block by virtue of the permute and transform.